

REMARKS

Claims 1-8 are pending in this application, with claim 4 withdrawn pursuant to a requirement for restriction. By this response to the non-final Response mailed on July 23, 2008, claims 9 and 10 are canceled without prejudice. No new matter has been introduced. Favorable reconsideration of the application in light of the foregoing amendments and following comments is respectfully solicited

Status of Claim 4 / Request for Rejoinder

As indicated on page 2 of the Office Action, the Examiner has withdrawn claim 4 pursuant to Applicant's election of Species I (upon which claims 1-3 and 5-10 are readable). However, page 5, line 15 of the Office Action incorrectly indicates claim 4 is "Cancelled." Page 1 of the Office Action ("Office Action Summary") likewise incorrectly indicates, at item 4, that only "Claim(s) 1-3 and 5-10 is/are pending in the application," and does not indicate at item 4a that claim 4 is withdrawn from consideration. In contrast, Applicants correctly indicate the status of the claims in the above listing of the claims.

Claim 4 is withdrawn pursuant to a election of species required by the Restriction Requirement dated March 31, 2009, of which page 2 indicates claims 1, 2, and 5-7 are generic. Upon allowance of one or more of these claims, claim 4 is entitled to consideration by the Examiner, as provided by 37 C.F.R. § 1.141 (*see* Restriction Requirement dated March 31, 2009, page 3, lines 16-20).

Applicants respectfully request rejoinder and allowance of withdrawn claim 4 upon allowance of any of claims 1, 2, and 5-7 previously identified as generic by the Examiner.

Rejections Under 35 U.S.C. § 103(a)

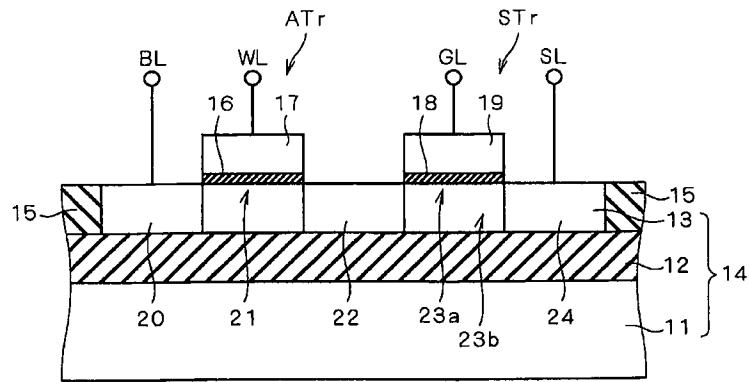
On page 2 of the Office Action, claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,912,842 (Chang) in view of U.S. Patent No. 6,204,534 (Adan). On page 7 of the Office Action, claims 8-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chang and Adan in view of U.S. Patent No. 6,794,717 (Matsumoto). Applicants respectfully traverse.

Independent claim 1 recites, *inter alia*,

a storage transistor having a first impurity region and a second impurity diffusion region opposed to each other through a first channel formation region, a first gate electrode formed above said first channel formation region, and a charge accumulation node formed below said first channel formation region.

Charge accumulation node 23b, formed below channel formation region 23a, illustrated in FIG. 3 of this application (shown below for the Examiner's convenience), and illustrates a non-limiting example the recited "charge accumulation node formed below said first channel formation region." *See, e.g.*, paragraph [0024] of the specification as filed.

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Page 3, lines 8-10 of the Office Action asserts that Chang, col. 1, lines 45-51 discloses the recited "charge accumulation node." However, claim 1 does not merely require a "charge

accumulation node,” but also recites that it is “formed below [a] first channel formation region.”

This is not disclosed or suggested by Chang. The cited portion of Chang, and FIG. 1 of Chang to which it relates, are provided below for the Examiner’s convenience:

well region 12. Under these bias conditions, hot electrons induced by band-to-band tunneling (BTBT) are injected into the floating gate 22. The resultant accumulation of charge on the floating gate 22 increases the threshold voltage V_T of the cell 10 to approximately -2.5 volts. Thus, when programmed, the cell 10 operates as an enhancement mode device. ⁴⁹ ₅₀

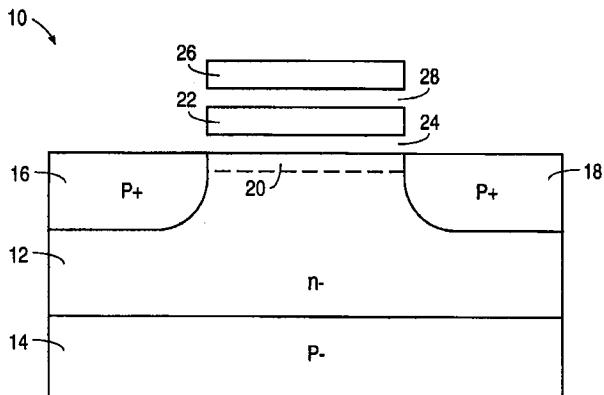


FIG. 1

As can be seen in Chang, FIG. 1, floating gate 22 is formed above channel region 20.

Accordingly, Chang does not disclose, suggest, or otherwise render obvious the “charge accumulation node formed below said first channel formation region” recited in claim 1.

With respect to Adan, the page 3, lines 7-10 of Office Action merely asserts, *inter alia*, that channel region 7 in Adan discloses a channel formation region. However, Adan does not suggest, or otherwise bridge the above gap between Chang and claim 1, the recited “charge accumulation node formed below said first channel formation region.” Matsumoto does not bridge the above gap between claim 1 and the cited art.

For at least the above reasons, independent claim 1 is not rendered obvious by the cited art. Accordingly, Applicants respectfully request withdrawal of the rejections of independent claim 1, and claims 2 and 3-7 which depend thereon.

Conclusion

In view of the above remarks, Applicants respectfully submit that the application is in condition for allowance, and respectfully requests the Examiner's favorable reconsideration as to allowance, and withdrawal of any rejections of the pending claims. The Examiner is invited to contact the Applicants' representative listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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